

MARYLAND DEPARTMENT OF HEALTH

Diabetes Prevention in Maryland: Spotlight on the National Diabetes Prevention Program

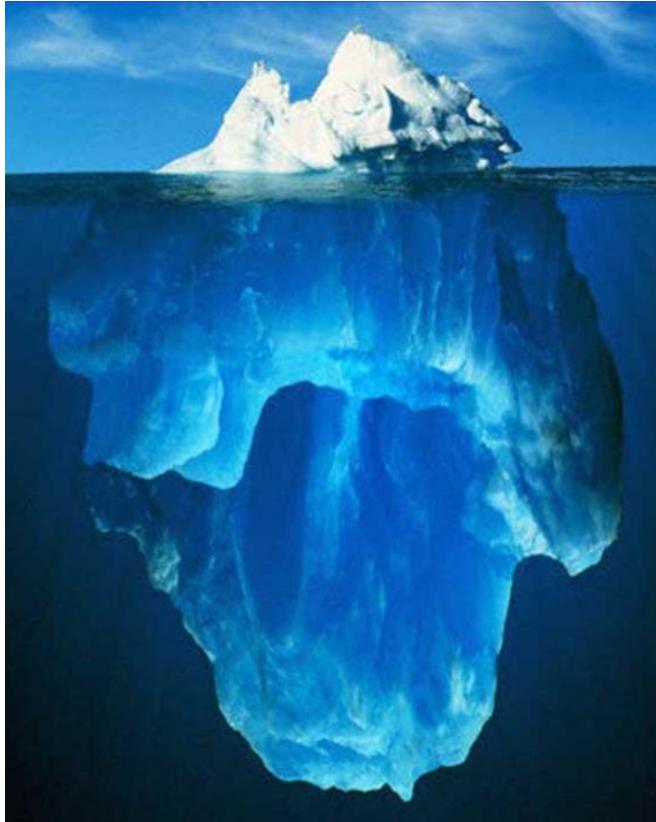
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April 29, 2018

Learning Objectives

- Identify key features of the Diabetes Prevention Program (DPP)
- Summarize Maryland initiatives to disseminate the DPP
- Describe the DPP referral process

Prevalence of Diabetes and Prediabetes



- 30 Million with diabetes

- 84 Million with prediabetes

- **9 of 10 people do not know they have prediabetes**

Centers for Disease Control and Prevention. *Diabetes Report Card 2017*.

Atlanta, GA: Centers for Disease Control and Prevention, US Dept of Health and Human Services; 2018.



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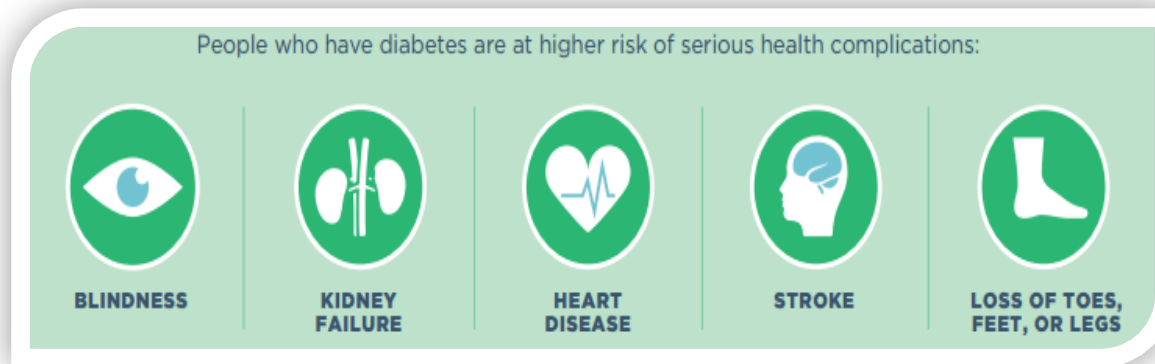
Economic Costs (2012)

- Diagnosed diabetes = \$245 billion
 - \$176 billion in direct costs, \$69 billion in reduced productivity (\$1/\$5 health care dollars)
- Diagnosed/undiagnosed diabetes, gestational diabetes and prediabetes = \$332 billion
 - \$244 billion in excess medical costs, \$78 billion in reduced productivity

Individual Costs

Anemia, peripheral neuropathy, cutaneous and mucocutaneous fungal overgrowth, gastroparesis, retinopathy, etc.

Oral medicines and supplies, doctor visits, nutritionist visits, ophthalmology visits, etc.



CDC: <http://www.diabetesnd.org/image/cache/prediabetes-inforgraphic.jpg>

Insulin sensitivity decreases years before diabetes onset

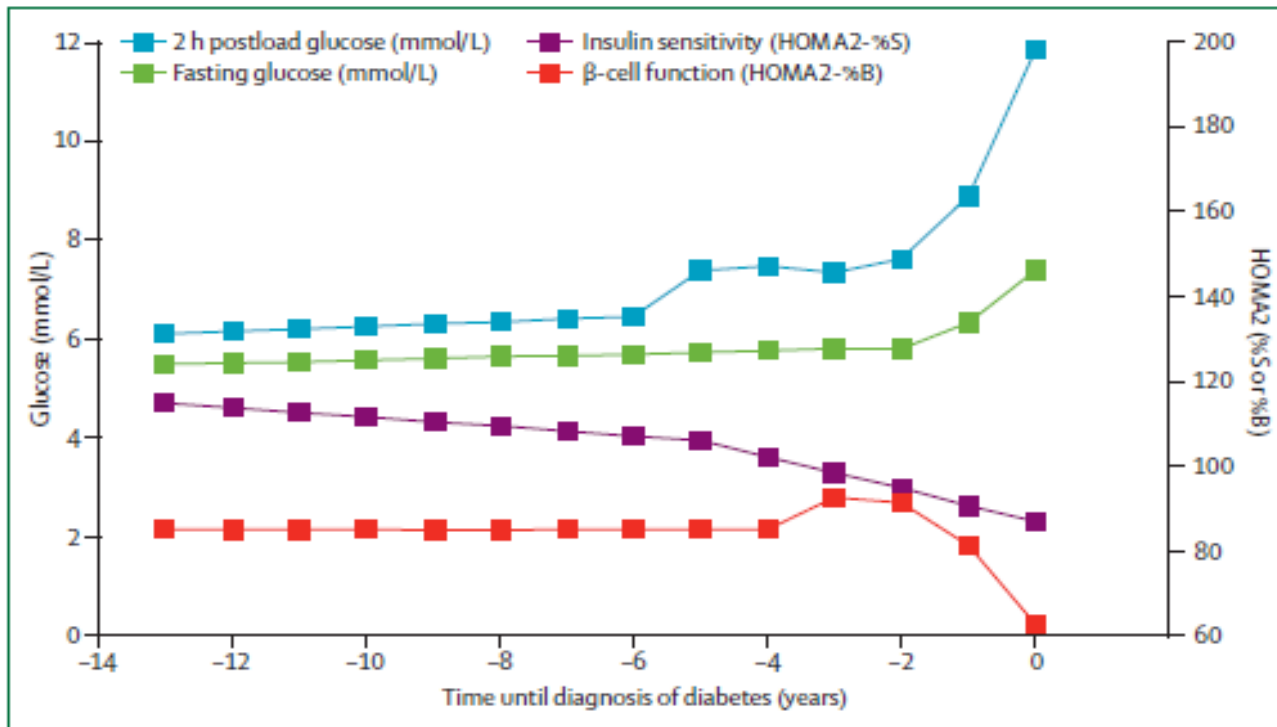


Figure 2: Fasting and 2 h postload glucose, insulin sensitivity, and β-cell function trajectories before the diagnosis of diabetes

Data are from the British Whitehall II study of 505 diabetes cases.³⁸ Time 0 is diagnosis of diabetes. The updated homoeostasis model assessment (HOMA2) was used to calculate insulin sensitivity (HOMA2-%S) and β-cell function (HOMA2-%B) trajectories. Adapted from figures 1 and 2 of Tabák and colleagues,³⁸ by permission of Elsevier.

Goals of Diabetes Prevention

- Delay onset of diabetes
- Preserve pancreatic beta cell function
- Prevent microvascular and perhaps cardiovascular complications

pancreas

pancreas

pancreas

pancreas

pancreas

Diabetes Can be Prevented

- The Diabetes Prevention Program
 - 3,234 people with elevated glucose levels, non-diabetes
 - Placebo
 - Metformin
 - Lifestyle changes (weight loss, heart healthy diet, 150 minutes exercise weekly)
- Lifestyle change group: 58% reduction in new diabetes diagnosis over 2.8 years
- Metformin group: 31% reduction



Diabetes Prevention Program Research Group, N Engl J Med, 2002

Key Concepts about the National Diabetes Prevention Program

Two evidence-based goals



- 5-7% weight loss
- Moderate physical activity of 150 minutes a week
- 1 year program
 - 16 core sessions: 1-2 hours in months 1-6
 - 6-8 core maintenance sessions, 1-2 per month in months 7-12
 - Nutrition and physical activity content
 - Behavior change content, such as goal setting and problem solving

Prediabetes Screening and Testing

ADA Recommendations

- Overweight or obese (BMI 25; 23 for Asian American adults) who have 1 or more of these risk factors:
 - First degree relative with diabetes
 - High-risk race/ethnicity (African American, Latinx, Native American, Asian American, Pacific Islander)
 - History of cardiovascular disease
 - Hypertension
 - HDL cholesterol <35 mg/dL and/or triglyderide >250 mg/dL
 - Women with PCOS
 - Physical inactivity



Prediabetes Screening and Testing

ADA Recommendations (ctd)

- A1C (blood test) $\geq 5.7\%$ on previous testing (Test at least annually)
- Women diagnosed with gestational diabetes (Test at least every 3 years)
- No symptoms: testing should begin at age 45 years
- Test at least every 3 years



Prediabetes Screening and Testing

USPSTF Recommendations

- Overweight or obese (BMI 25; 23 for Asian American adults) who have had 1 or more of these risk factors:
 - Family history of diabetes
 - High-risk race/ethnicity
 - Women diagnosed with gestational diabetes
 - Polycystic ovarian syndrome (PCOS)
- Testing should begin at 40 years or earlier if one of the above characteristics

US Preventive Services Task Force.

<https://www.uspreventiveservicestaskforce.org/Page/Document/RecommendationStatementFinal/screening-for-abnormal-blood-glucose-and-type-2-diabetes>



CDC Prediabetes Screening Test

CDC Prediabetes Screening Test



COULD YOU HAVE PREDIABETES?

Prediabetes means your blood glucose (sugar) is higher than normal, but not yet diabetes. Diabetes is a serious disease that can cause heart attack, stroke, blindness, kidney failure, or loss of feet or legs. Type 2 diabetes can be delayed or prevented in people with prediabetes through effective lifestyle programs. Take the first step. Find out your risk for prediabetes.

TAKE THE TEST—KNOW YOUR SCORE!

Answer these seven simple questions. For each "Yes" answer, add the number of points listed. All "No" answers are 0 points.

Yes	No
1	0
1	0
1	0
5	0
5	0
5	0
8	0

Are you a woman who has had a baby weighing more than 9 pounds at birth?

Do you have a sister or brother with diabetes?

Do you have a parent with diabetes?

Find your height on the chart. Do you weigh as much as or more than the weight listed for your height?

Are you younger than 65 years of age and get little or no exercise in a typical day?

Are you between 45 and 64 years of age?

Are you 65 years of age or older?

Add your score and check the back of this page to see what it means.

AT-RISK WEIGHT CHART

Height	Weight <small>Pounds</small>	Height	Weight <small>Pounds</small>
4'10"	129	5'7"	172
4'11"	133	5'8"	177
5'0"	138	5'9"	182
5'1"	143	5'10"	188
5'2"	147	5'11"	193
5'3"	152	6'0"	199
5'4"	157	6'1"	204
5'5"	162	6'2"	210
5'6"	167	6'3"	216
		6'4"	221

National Center for Chronic Disease Prevention and Health Promotion
Division of Diabetes Translation



Originally from 2009

IF YOUR SCORE IS 3 TO 8 POINTS

This means your risk is probably low for having prediabetes now. Keep your risk low. If you're overweight, lose weight. Be active most days, and don't use tobacco. Eat low-fat meals with fruits, vegetables, and whole-grain foods. If you have high cholesterol or high blood pressure, talk to your health care provider about your risk for type 2 diabetes.

IF YOUR SCORE IS 9 OR MORE POINTS

This means your risk is high for having prediabetes now. Please make an appointment with your health care provider soon.

HOW CAN I GET TESTED FOR PREDIABETES?

Individual or group health insurance: See your health care provider. If you don't have a provider, ask your insurance company about providers who take your insurance. Deductibles and copays may apply.

Medicaid: See your health care provider. If you don't have a provider, contact a state Medicaid office or contact your local health department.

Medicare: See your health care provider. Medicare will pay the cost of testing if the provider has a reason for testing. If you don't have a provider, contact your local health department.

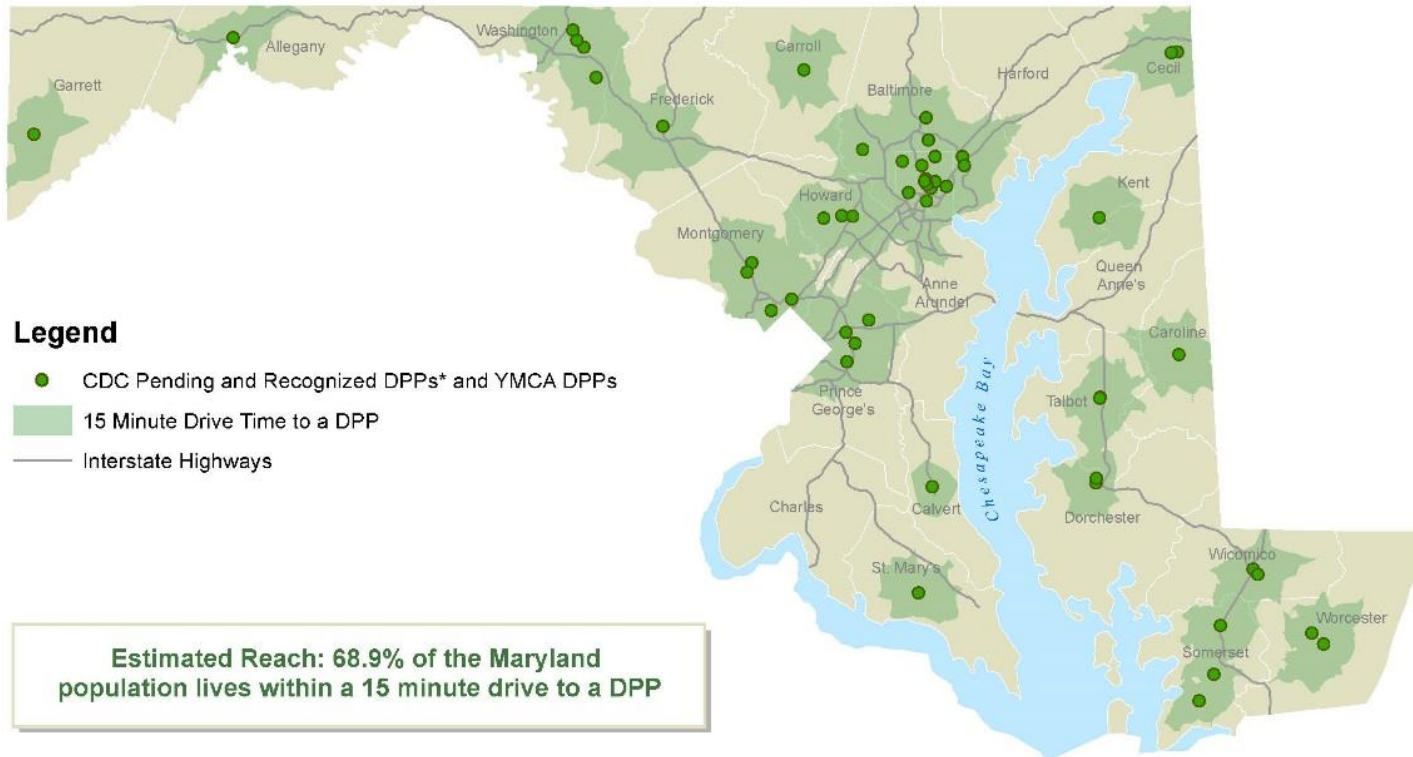
No insurance: Contact your local health department for more information about where you could be tested or call your local health clinic.

Statewide Diabetes Prevention

- Scale up to build capacity and infrastructure for new and existing DPPs
- Facilitate partnerships at the state and local level
- Engage health care providers to test and refer
- Build and sustain referral systems
- Promote awareness of prediabetes and the DPP



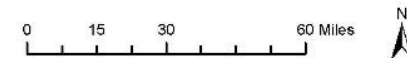
Diabetes Prevention Program (DPP) Access in Maryland: 15 Minute Drive Time Analysis



* Includes all in-person DPPs open to the public. Excludes online DPPs and DPPs for employees only.

Data Sources:

1. Centers for Disease Control and Prevention, Diabetes Prevention Recognition Program
2. Maryland Department of Health and Mental Hygiene, Center for Chronic Disease Prevention and Control
3. U.S. Census Bureau. Centers of Population by Block Group, 2010.



Author: Erica A. Smith, MS
Date: 4/26/17

Medicaid DPP Demonstration

Target

Focus on the four jurisdictions with highest number at-risk beneficiaries (approx. 58,000)

Issued a non-competitive grant opportunity to 8 MCOs; 4 MCOs participating

Overall Goal

Enroll 600 beneficiaries across the participating HealthChoice MCOs



Medicaid DPP Demonstration

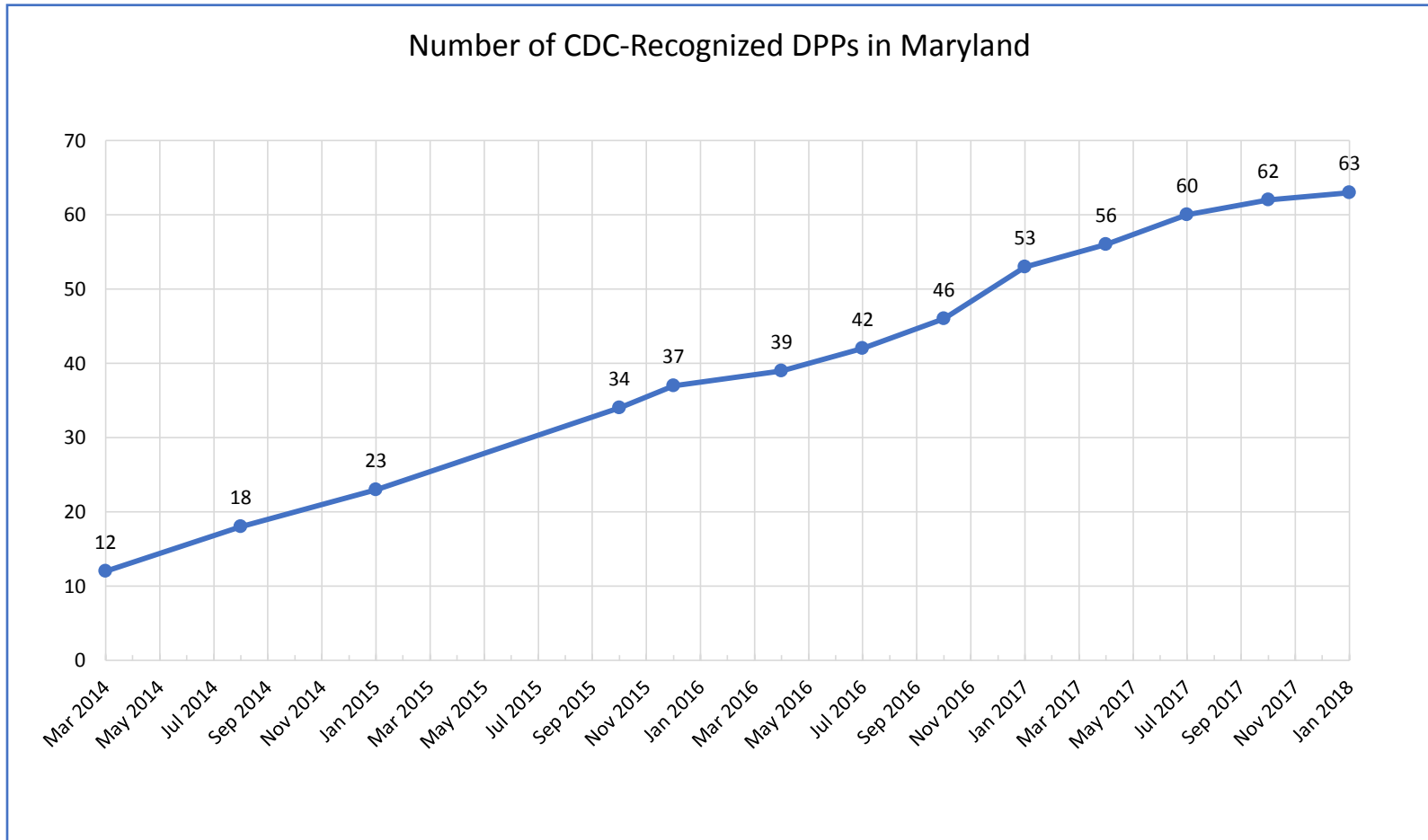
Managed Care Organizations	Number of Beneficiaries Enrolled in National DPP Class ¹
Amerigroup	248
Jai Medical Systems	152
MedStar Family Choice	150
Priority Partners	111
Total	661

¹Members signed an informed consent and have attended at least one session, not including a session zero.

Current Types of DPP Suppliers

- In-person DPP
 - Part of a health system (hospital, FQCH, community health)
 - Part of a community large or small organization or business (YMCA, faith-based)
 - Part of county government (local health departments, other county government)
- Virtual or on-line DPP

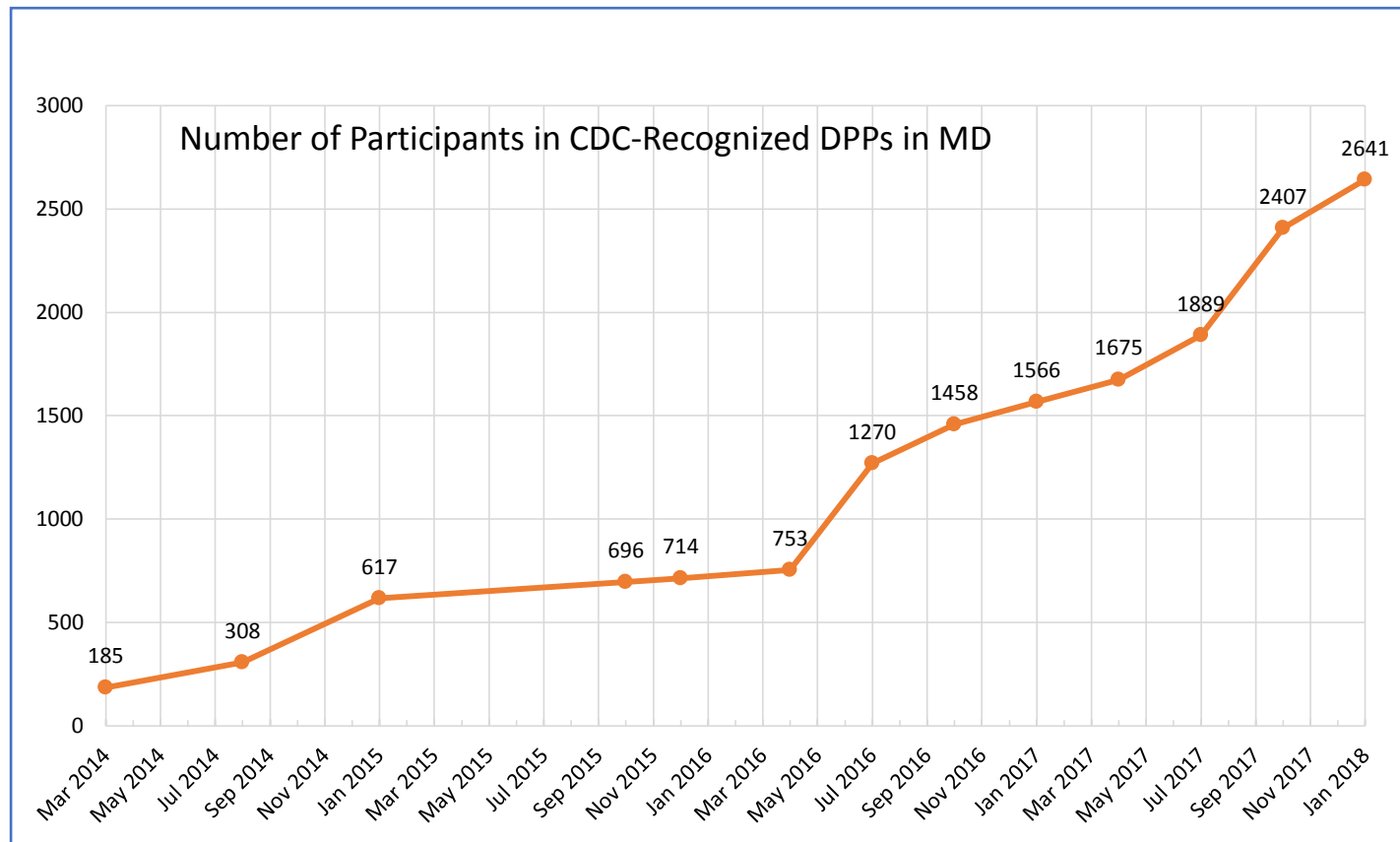
DPP in Maryland



Source: CDC Diabetes Prevention Recognition Program (DPRP)



Maryland DPP Enrollment



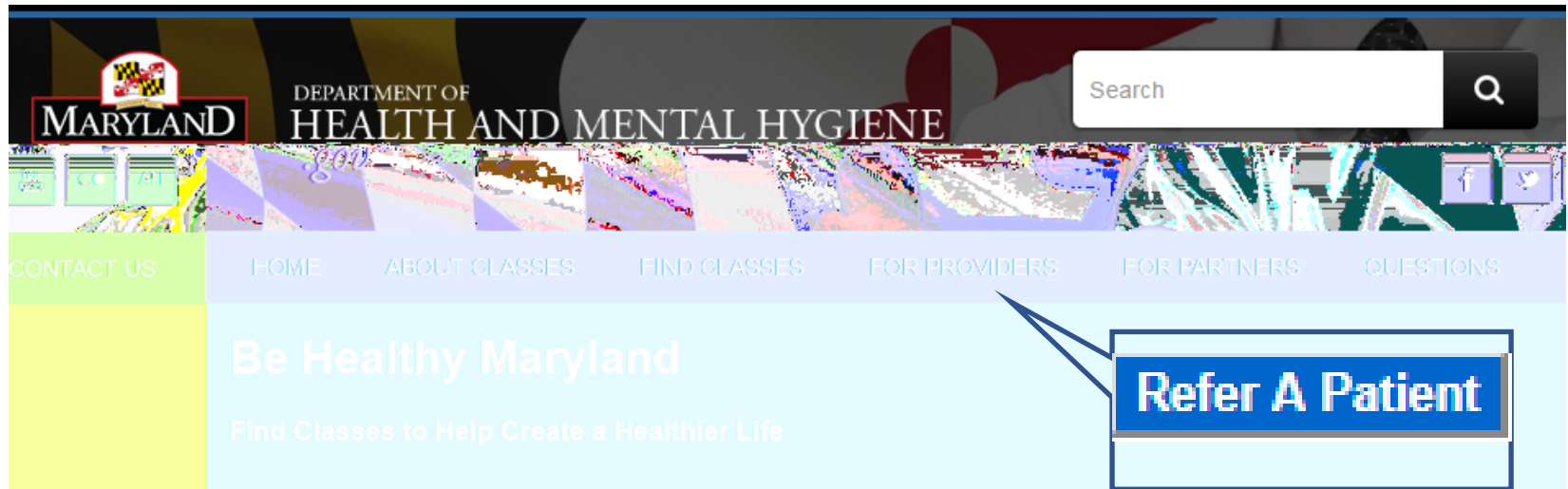
Source: CDC, January 2018 Diabetes Prevention Recognition Program (DPRP) Data

Workshop Wizard

Workshop Wizard Data from June 2016 through April 17, 2018

DPPs reporting data	40	
Classes held	118 (36 completed)	
Participants enrolled with data	1,138	
Completed 4 or more classes	985	87%
5% or more weight loss	270	32%
Average weight loss	4.7%	

Finding Classes and Referring



lease let us

This website is for learning about and finding group classes to help create healthier lifestyles and manage day-to-day health. It is for people who have one or more health conditions.

These include prediabetes (being at risk of developing type 2 diabetes), diabetes, heart disease, high blood pressure, cancer, and many other long term conditions.

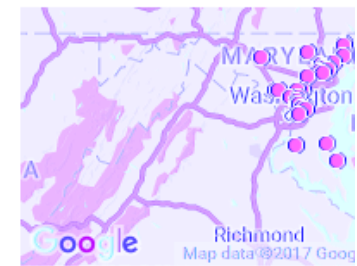
Click on [About Classes](#) to learn more about each type of class.

Do you want to refer a patient to a lifestyle change or self-management class?

Do you have questions about referring a patient to a lifestyle change or self-management classes?

Learn more about our [partners](#) who provide lifestyle change or self-management classes. This is also the place for our partners to find up to date news and information.

Find a class near you:



[View Map](#)

Don't see a class in your area? [Let us know.](#)



Referrals

- DPPs track participant information in HIPAA compliant website
- Feedback loop to the health care provider
 - Enrollment
 - Attendance
 - Weight loss
 - Physical activity

Workshop Wizard Report

Referral Date	Entity	Participant	Curriculum/Workshop	Calls	Sessions Attended/Held	Weight Lost	Average Activity
		test empl well Referral	DPP				
May 1, 16	Demo Entity	Sandor Clegane	DPP	07-06-17	talked about the program.	5/8	5
			05-01-17	LynzyDemo McIntosh	is interested		61
			Demo Site	07-10-17			
				Contact Again			

Cost Calculator

AMA DPP COST SAVING CALCULATOR

Your organization type
Health Care System

Your insured population size (age 18-64) 2600

Your cost of program per participant \$ 450

Prevalence of prediabetes 37%

Your anticipated enrollment
Low range 10%
High range 50%

Your anticipated completion
Low range 40%
High range 70%

RESET VALUES CALCULATE



BEGIN THE CONVERSATION WITHIN YOUR ORGANIZATION:

Calculate your potential medical costs savings from providing the National Diabetes Prevention Program (National DPP) as a covered benefit.

By enabling individuals within your population who are at risk for diabetes to participate in a local or virtual National DPP, you can help them prevent type 2 diabetes and reduce your organization's health care spending.

Enter information unique to your population into this calculator to see potential cumulative and net savings over a 3-year period.*

Assumptions and methodology

The results are derived from a statistical model that follows a fixed cohort of the population and does not account for new cases of diabetes or changes in the core population. Contact us at iho-info@ama-assn.org for additional information. This calculator is provided to you by the AMA for informational purposes only. No return on investment or other results are guaranteed. ©2015. American Medical Association. All rights reserved. This calculator was not developed nor is it endorsed by the Centers for Disease Control and Prevention.

AMA diabetes prevention calculator: <https://ama-roi-calculator.appspot.com/>



Projected Economic Impact of Diabetes Prevention

 Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

HOME

HELP USING THIS TOOLKIT

[CDC](#) > [Diabetes Home](#) > [National DPP](#)

DIABETES PREVENTION IMPACT TOOLKIT

STATE

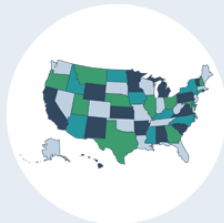
EMPLOYER

INSURER

DIABETES PREVENTION IMPACT TOOLKIT

Use this Impact Toolkit to project the health and economic effects of the National DPP lifestyle change program on your population at risk for diabetes. For technical details on the Impact Toolkit and how to use it, or See the [HELP](#) page for a complete list of Impact Toolkit resources.

To get started, choose one of the modules below.



STATE



EMPLOYER



INSURER

DPP Impact toolkit <https://nccd.cdc.gov/toolkit/diabetesimpact>



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Key Information for Providers

- Diabetes is preventable
- Prediabetes is reversible
- The DPP is evidence-based, cost-effective
- The DPP is available across the state and referring patients is easy
- DPP is covered by Medicare (April 2018), some commercial insurers; cost with no insurance is about \$430 per individual/per year

Resources

- MDH Chronic Disease Prevention: Behealthymaryland.org
- National DPP Coverage Toolkit: coveragetoolkit.org/
- CDC and AMA Prevent Diabetes STAT Toolkit :
preventdiabetesstat.org/toolkit.html
- CDC DPRP Recognition Standards:
www.cdc.gov/diabetes/prevention/lifestyle-program/requirements.html
- ADA Diabetes Risk Test: www.diabetes.org/are-you-at-risk/diabetes-risk-test/?referrer=https://www.google.com/
- Medicaid and National DPP Demonstration Summary:
www.chronicdisease.org/page/Medicaid_NDPP
- Medicare Actuarial Certification of National Diabetes Prevention Program
www.cms.gov/Research-Statistics-Data-and-Systems/Research/ActuarialStudies/Downloads/Diabetes-Prevention-Certification-2016-03-14.pdf



Resources cont.

- [Prevent Diabetes STAT™](#) - a national collaboration between the AMA and the Centers for Disease Control and Prevention launched in 2015.
- [Preventing Diabetes](#) - read about the AMA and CDC's joint efforts to prevent type 2 diabetes and slow the progression of prediabetes.
- [National Diabetes Prevention Program](#) - CDC's efforts to prevent type 2 diabetes and slow the progression of prediabetes

Questions?

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